39: Gerstle & Raitt C,Q-4,5 (1952-1972) 1974 009 Tonga 009

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A neatly-fashioned weapon, blackened skin, necklace of sharks' teeth, and a turban, symbolic of defiance and self-confidence in the face of the enemy, comprise this Tongan's war costume (1827).

'Oku ha lalei heni ai e fa'ahinga teunga 'o ha tangata tau 'i ono'aho. 'Oku ai e tui ko e ma'u mei he kau Fisi 'a e valivali 'uli'uli e kili. Ko e kahoa na'e ngaohi ia mei he nifo'i 'anga.

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To partake of the "harvest of the sea," early Tongan fishermen used lures and hooks (such as these) made from turtle shell, whale ivory, and mother-of-pearl shell. These old fishhooks belonged many years ago to Siosiua "Niukapu" Palefau from Tu'anikivale, Vava'u, and are preserved today as artifacts by his great-great-granddaughter, Tu'ifua 'Utoikamanu.

Na'e ngaue'aki 'e he kau toutai 'o ono'aho ha ngaahi mata'u na'e fa'u mei he 'uno 'o e fonu, hui'i tofua'a pe nga'esi fingota. Ko e ongo mata'u ko eni na'e ngaue'aki fuoloa ia 'e Niukapu (Siosiua Palefau) mei Tu'anikivale, Vava'u, pea 'oku kei tauhi ia he 'aho ni 'e hono mokopuna tolu ko Tu'ifua 'Utoikamanu.

55: Anderson D,T-5 (1777) 1967 OU9 Tonga OU9

226 barb'd. With the large ones they catch Bonneto & Albicore by put-
[321] ting them to a large Bamboo rod twelve or fourteen feet long, with a
[391] line as long, which rests in a notch of a piece of wood fix'd in the stern
[227] of the Canoe for that purpose, and is dragg'd on the surface as she
[824] rows along without any other bait than a tuft of flaxy stuff[1] near the point. They have also great numbers of pretty small seines, some of which are of a very delicate texture, that they use to catch fish with
[462] in the holes on the reefs when the tide ebbs, besides barb'd gigs which
[502] they strike some with, each of which are so numerous that shows much of their time is employ'd in that business; & it is the only thing that can be reckon'd laborius where we find the women are sometimes engag'd, and where they handle the paddle as dexterously as the men.

534 The other manual employments consist chiefly in making musical
[463] reeds, flutes, warlike weapons and stools or rather pillows[2] to sleep on. The reeds have eight, nine or ten pieces plac'd parallel to each other but do not observe that simple progression in length as the ancient ,[3] having the longest sometimes in the middle &c and several of the same length, so that I have seen none with more than
[533] six notes. They seem incapable of playing any regular music on these, at least not distinguishable by our ears, though it seems very strange they should invent an instrument whose powers they must certainly be acquainted with and not be able to apply it to use, at least not generally. The flutes are a joint of Bamboo close at both ends, with a hole near each and four others, two of which & one of the first only are us'd in playing.[4] They apply the Thumb of the left hand to close the nostril of that side and blow into the hole at one end with the other. The middle finger of the left hand is applied to the first hole on that side and the fore finger of the right to the lowest of the same side. In this manner though the notes are only three, they produce a pleasing yet simple music which they vary much more than the notes would seem to admit of. Whether the other holes have any use in this case I am not certain, but one of their very evident intentions is to serve as a double flute, for the other two holes & that at the end are placd exactly in the same order as the others so that they play in-
533 differently with either end. Their being accustom'd to a music which
177 consists of such few notes is perhaps the reason why they do not seem to relish any of ours, which is so complex, but they seem very sensible of any that is more deficient than their own, as they us'd to be well

[1] Teased out hibiscus bark would be so used.
[2] *kali*, pillows.
[3] Probably 'syrinx' was the word he was in search of. The Tongan name was *mimiha*.
[4] The *fangufangu*.

[435 cont.]

175 hands; the differences of sex or age did not exempt them from this
304 amputation; for even amongst the few children, whom we saw running about
[291] naked, the greater part had already suffered this loss. Only a few grown people, who had preserved both their little fingers, were an exception to the general rule. We immediately conjectured that the death
175 304 of a near relation or friend might require these strange mutilations,
171 in the same manner as is customary among the Hottentots, in Africa (10);

10. See Kolben's account of the Cape of Good Hope; also the Recherches Philosophiques sur les Americains, par M. Pauw, vol. II. p.224, 229.

the Guaranos, in Paraguay; and the Californians; and our enquiries, though unsuccessful at first, afterwards confirmed the conjecture.

175 Another singularity, which we observed to be very general among these
304 people, was a round spot on each cheek-bone, which appeared to have been burnt or blistered. Some had it quite recent, in others it was covered with a scurf, and many had a very slight mark of its former existence.
[171] We could never learn how and for what purpose it was made; but we supposed it could only be [436] used like the Japanese moxa, as a remedy against various complaints.

175 Notwithstanding the engaging manners of the natives, we foresaw
122 that we should make but a very short stay among them, because our
439 captains could not obtain refreshments in any considerable quantity; which might be owing not so much to their scarcity upon the island, as to the difficulty of making our goods current for such valuable articles,
175 when they could obtain them in exchange for arms and utensils. They
439 had brought indeed a few yams, bananas, coco-nuts, and shaddocks for
[227] sale, but they soon dropt that branch of trade. Our people purchased
[237] an incredible number of fish hooks made of mother of pearl, barbed with
[171]

[436 cont.]

175 439 237 227 171 tortoise-shell, but in shape exactly resembling the Taheitee fish-hooks, called witte-witte (11); some of which were near seven inches

11. See Hawkesworth, vol. II. p.218. Also Parkinson's Journal, p. 77, and Tab. XIII. fig 25.

175 439 301 237 824 531 long. They likewise bought their shells, which hung on the breast, their necklaces, bracelets of mother of pearl, and cylindrical sticks for the ear. They had the neatest ornamental combs that can be imagined, consisting of a number of little flat sticks about five inches long, of a yellow wood like box, most firmly and elegantly connected together at the bottom by a tissue of the fibres of coco-nut, some of which were of their natural colour, and others dyed black.

175 285 531 These fibres were likewise employed [437] in making a great variety of baskets, wrought with regular compartments of two colours, brown and black, or sometimes all brown, and ornamented with rows of round flat beads, which were made by cutting pieces of shells into that shape. The taste and the workmanship of these baskets were elegant in the highest degree, and varied into different forms and

175 171 515 415 824 patterns. Those little stools, which serve as pillows for the head, were much more frequent here than at Taheitee; flattish bowls, in which they place their meat, and spatulas with which they mix up the bread-fruit paste, were likewise in great abundance, and made of the club-wood (casuarina equistifeolia), which had this name from supplying all the islanders in the South Sea with

175 411 weapons. The clubs of the people of this isle, were of an infinite variety of shapes, and many of them so ponderous that we could scarce manage them with one hand; the most common form was quadrangular, so as to make a rhomboid at the broad end, and gradually tapering into a round handle at the other. But many were spatulated, flattish,

824 178 [372] [752] [524] /162 cont./ (old); serves to deep fire smoldering (old); as fuel (old). "Towel" (old), "toilet paper" (old) and to clean shoes (new): the fibers are also used to press out the grated coconut meat (old); the juice of green, warmed husks and the crumbly material between the fibers of old husks are used to treat wounds (old); used for making children's toys (sailboats) (new?).

[352] [285] [372] 5. The palm leaves (lou niu): used, as is, to sit on in the bush (old); used to make floor mats (takatapu) (old), fans (old), baskets (old), hats (for example, helemeti and tata faka-polis) (new); needed to make house walls and roofing (old); used in dry form as fuel (old).

[285] [287] [412] 6. The center rib of the leaflets (tu'a niu): used in plaiting baskets (old) and fans (old) and in making tapa stencils (see p. 328); used in making brooms (old).

[482] [372] /163/ 7. The leaf stems (tome): used as carrying sticks (see p. 250) (old); in dry state as fuel (old); also used to keep fire going (smoldering leaf stem wound with tapa) (old).

[287] [415] 8. The bast fiber at the base of the leaf stem (kaka 'i niu): used to make tapa stencils (under side) (old) and as a bag for squeezing medicines and food (old).

[313] 9. The wood or the trunk (sino oe niu): used to make rafters and roof laths (old); used as posts and beams in houses (old?), as single posts on the plantations and for palisades (old).

[278] 10. The bark (kili oe niu): used to make medicines (for stomach pains) (old).

[227] [278] 11. The roots (aka oe niu): used to plait fish baskets (traps, finaki) (old) and to make cuttle fish hooks (tailpiece) (old); the juice of roots serves as medicine for abdominal pains and headaches (old).

it maybe designated as the most useful plant of the /163/ Tonga Islands.

245 Cook reports that he came across coconut palms on Tongatapu "in astonishing numbers." (427)

427. J. Cook, Beschreibung...loc. cit. VI. p. 237.

/176 cont./

226 [462] in the reef hollows on the surf side (liku) of the islands. They fish alone or engage in joint fishing known as 'e'e, a group of them forming two rows and moving in shallow water. As soon as a fish is seen between the rows they form a circle and catch it with the talaki.

Spearing Fish:

tao:

[227] The fish spears have one to six (mostly three or four) points and are generally three or three and a half meters long. From a reef or a boat the natives very expertly hurl (thrust) the spear with one hand (tao velo) or with both hands (tao hoka) at the fish [416] spotted in the water. At night, two men also ride in an outrigger with a benzol pressure lamp in the bow. The native with his spear stands behind the lamp; the man paddling sits astern. Thus they spear the fish attracted by the light.

[227] With a smaller spear that has one or two (seldom three) points they also dive and kill the fish under water (tao uku).

Shooting Fish under Water:

sengai:

[227] This is done with a sling (sengai) made of a forked branch and a rubber strip (from an auto tire) and a small spear (tao ukame'a) made entirely of iron, which serves as an arrow. The natives, who [414] wear diver's goggles (sio'ata uku) of wood, glass, resin and rubber, self-made or bought from a merchant, swim inside or beyond the reef in more or less deep water, dive and shoot the fish swimming past, which they take to a boat that usually accompanies them.

Fishing with Hook and Line:

taumata'u:

In an outrigger (or a cutter) they go out to sea (some miles

/176 cont./

226 beyond the reef) and from the moving boat they drop into the water one or several fishhooks with bait (a piece of fish, more seldom chicken feathers set in lead) and a metal weight (copper, iron) on a line; /they drop it into the water/ sometimes not far /177/ above the sea bottom (some 20 to 90 meters deep); fish of various sizes and species bite.

From the reef they likewise throw a line (up to about 20 meters in length) with hook and bait into the sea; they also try catching fish at ebb tide in the hollows of the reef with small hooks, a weight and a shorter line (sometimes on a stick) (tauta'a).

fakatele:

In this method of fishing they ride around in an outrigger and have the end of an approximately 25 meter line slung around their bodies, and with this they pull hook and bait through the water; large fish, even sharks, bite.

Fishing with a Lamp:

226 416

ama:

They go out along the reef in the dark at ebb tide with a benzol pressure lamp and kill the disturbed fish with a knife or a spear. In the kupenga sili and the tao methods they sometimes also use a lamp (see above).

Trap Fishing:

226 [227]

finaki:

The spherical trap made of roots of the coconut palm (or of wire netting) (with an indented, funnel-shaped hole) with bait placed inside (a piece of half-ripe coconut meat or a piece of cooked manioc root) is put out on the reef at ebb tide or is dropped and anchored in the water some 20 or 30 meters from the shore; a line with a wooden float fastened to the finaki marks the spot. After

/179 cont./

though it has by no means displaced them. Even now, for example, the casting net (kuenga sili) is still, as in old times, (463)

463. See J.J. Labillardiere, Relation du voyage... /Account of the voyage.../ II. p. 113/114; W. Ellis, An authentic narrative...I. p. 109; Th. West, Ten years...

a very important piece of fishing gear, especially among the Ha'apai group. Among the ancient Tongan fishing methods, however, bonito fishing (from a boat with bamboo pole, tow-line, hook and fiber bait) (464)

464. See J. Cook, Beschreibung...loc. cit. VI. p. 286/287; J. Martin, loc. cit. II. p. 342/343.

has disappeared.

A change took place, chiefly with respect to the material used for making the fishing gear. With the exception of tuki (see above under /180/ uloa), no fish net in Tonga is today knotted of indigenous material. (465)

465. Formerly, the bast of the olonga tree (Tonchaedia) in particular (see J. Martin, loc. cit. II. p. 279), coconut fiber cord (ibid.) and the bast of the fau tree (Hibiscus tiliaceus) (see Th. West, Ten years...p. 119) were used for net knotting.

The natives use imported European twine which can be bought from shopkeepers on most of the islands. Now and then they even acquire ready-made nets in the department store of the chief towns. Most fish nets nowadays have weights made of lead instead of the traditional coral-stone sinkers; they buy the lead from merchants, heat it and pour it in the shape of a plate which they cut into small pieces that are bent into tubular shape and used as weights around the edge of the cord of the net. The natives prefer lead sinkers because they are heavier than coral stones and make handling the net easier. The float,

/190 cont./

227 178 824 however,--usually of fau (Hibiscus tiliaceus) wood--is still made exactly as it was in olden times. In the uloa community fishing expedition they use the heavy net plaited of coconut fibers, as they always have, since the available hemp material seems to be too weak [177] [283] for this purpose. However, the long rope required for this procedure is scarcely plaited any longer of the fau bast; they buy an imported 227 European rope. The fish spears today have iron points with barbs; 177 they buy the prongs ready-made from a shopkeeper or have them made by 178 a blacksmith in one of the chief towns. The points are inserted in the spear shaft and fastened with a wrapping of European fishline. [824] [283] The ancient Tongan fishlines plaited of coconut fibers (466)

466. See, for example, J. Cook, Beschreibung... loc. cit. VI. p. 286.

have long since disappeared. Today the natives use the European [237] lines available in quantities from shopkeepers, just as they use exculsively the steel fishhooks introduced by whites and have apparently forgotten the traditional, beautiful hooks of tortoise shell and mother-of-pearl. (467)

467. Ibid.

226 416 177 Benzol pressure lamps have largely replaced the torches formerly cus- 227 tomary in night fishing. The traps (finaki) on many islands are already made more often of wire netting than of the roots of coconut 177 palms, and there is scarcely a Tongan who goes to the trouble of making [824] the weirs (pa) of bamboo and plaited coconut palm leaves, but generally uses wire netting for this purpose as well. Finally, some of the 501 178 177 boats used in fishing are still the traditional outriggers (popao, rarely tafa'anga) (468)

468. See p. 349 ff.

but some are also rowboats and European-type sailboats which have re-

/180 cont./

501 replaced the ancient Tongan catamarans (kalia). (469)
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469. Natives of Vava'u also use the motor boats belonging to Neiafu merchants in fishing with the towline (fakatele).

226 /181/ The sandals (teka) plaited from the bast of the fau tree
292 (Hibiscus tiliaceus) are today still worn by the men (sometimes also by
178 the women) when they fish on the rough coral reefs.
824

415 Fish are transported in part in the traditional fish baskets
226 ('oa) plaited of young coconut palm leaves; (470)
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470. These are apparently the ones Mariner refers to in his account (J. Martin, loc. cit. I. p. 309.)

however, they often use European bags, while the small fish--apparently according to ancient custom--are strung on sticks stuck through their heads.

286 According to Mariner (471) ..
463

471. J. Martin, loc. cit. II. p. 96.

[178] net-knotting in ancient Tonga was a hereditary craft. Nowadays, to all appearances, it is not, though in every village there are a few natives (especially older ones) who are able to make fish nets. As in
[824] old times, they use a knotting shuttle (netting needle) (hika) which
(239) is carved from the wood of the tao tree (Casuarina equisetifolia L.) or of the milo tree, or a sperm whale bone, and a measure for the meshes (mata kupenga) cut out of tortoise shell or fau wood (Hibiseus tiliaceus). An old razor blade serves as knife. They buy the
[465] necessary amount of twine for making the net and ask one of the experts to knot a fish net; usually his work is acknowledged with a small gift (for example, tobacco). Since they are thus dependent
227 on the work of a specialist and the twine also costs a certain sum of
[463] money, not every household nowadays owns nets; they lend them to each
[426] other. The situation was probably similar in ancient Tonga, through
[178] the supply of fish nets was in general probably greater.

/182 cont./

226 owners of plantations bordering on the shore. (475)
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475. Perhaps the reason for this change is the fact that the natives today generally do not live on their plantations, but in the village.

226 It is only for the erection of weirs that they must apply to the
656 government for a license, and with that they are assured of the exclusive right to a specific fishing ground.

225 In former times the chiefs alone had the right to catch turtles
565 and consume them. (476)
178

476. See Th. West, Ten years...p. 122.

(177) As a result of Christianization and the gradual democratization of the Archipelago, commoners may today freely engage in turtle fishing.
(656) The only restriction--applying to all classes--is a legal closed
226 season for these animals (November to February). Tongan law (which
656 is the regulation that replaces the once arbitrary power of the chiefs)
671 furthermore determines a closed season for the 'ava fish of Nomuka (May to June), and forbids the use of dynamite.

226 Seen as a whole, present-day Tonga fishing is not essentially
178 different from that which was carried on in earlier times. The natives have largely kept their old methods, (477)

477. It is difficult to determine whether there was certain development within the old methods that was brought about by the Tongans themselves or was the result of foreign influences.

229 only one of which was apparently lost and to which two were added. In
177 the making of traditional fishing gear, European material is used to a rather large extent; it is more serviceable and at the same time
226 more convenient. As in ancient Tonga, almost all the procuring of
462 sea food is the business of the men; women gather only along the shore
000 and on the reef (liku) and fish with the hand net (talaki). As in all

101: Clark K-4,5 (1974) 1978 OU9 Tonga OU9

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000 sent to canneries in Pago-Pago.[1] A recent Japanese survey, which mapped the most productive Tongan fishing grounds, suggested that up to 90 percent of the potential catch could be exported to Japan (Kyokuyo, Hogai Co. Ltd. 1965, p. 2). In view of the domestic demand for fish products, plus the nutritional status of many urban Tongan inhabitants (to be discussed in the following chapters), such exportation would be totally irresponsible to the needs of the Tongan people.

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228 Small scale, private household fishing activity has done little to meet domestic demand. Survey responses indicated that the lack of investment capital for necessary fishing equipment is the major obstacle to expansion of private fishing enterprises.

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651 Discussion of this problem with part-time and full-time fishermen revealed that not only is the basic cost of equipment prohibitive, but a 33 percent import tax, charged by the government for such items (i.e., nets, lines and hooks) makes purchase impossible for the average Tongan. While this situation insures the governmental monopoly on commercial fishing, it hinders the expansion of fishing activities necessary for meeting the domestic demand for fish products.

228
655 Another major obstacle to the expansion of fishing activities in Tonga is the general lack of preservation and holding facilities throughout the islands. Again, the only adequate

[1] Ironically, much of this same catch is processed in canneries and resold as tinned fish products to Tonga at a sizable increase in price.

105: Vaea & Straatmans G,I-3 (no date) 1954
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000 3. NET FISHING.
(a) Kupenga fonu; (b) Pa 'Otule; (c) Huluhengi; (d) Finaki; (e) Ta 'Ulukau; (f) Fakamamaha; (g) Pulou; (h) Silita; (i) Tali; (j) Tapo; (k) Kupenga Sili.

4. SPEAR FISHING.
(a) Ordinary; (b) Taupoa or Fakapoa;2 (c) Ama.

5. LINE AND HOOK FISHING.
(a) Ordinary; (b) Fakatele; (c) Seoseu or Heuheu; (d) Tautu'u or Tautukutuku; (e) Taulamata'u or Taumata'u.

6. OTHER FISHING METHODS.
(a) 'Aukava; (b) Shark noosing; (c) Makafeke (Octopus baiting); (d) Whaling.

7. OTHER SEAFOOD.
(a) Ala Kuka (crabs); (b) Uku Vasua (Tridacna); (c) Ala To'o; (d) Ala Kuku; (e) Ala Muli'one (sea-slug); (f) Fua Kolukalu (Jellyfish); (g) Uku'uo (lobster); (h) Miscellaneous shell-fish; (i) Uku Tumumisi (sea-eggs); (j) Tauhele Tolitoli (big crabs).

8. POISONOUS FISH.

9. DESCRIPTIVE LIST OF COMMON TONGAN FISH.

10. PROCESSING OF FISH.

11. FISHERIES REGULATIONS.

12. SUMMARY AND CONCLUSIONS.

REFERENCES.

1.—COMMUNITY FISHING.

226 (a) *Pola*. This method of mass fishing is carried out only on the sand flat for instance at the West Point of Tongatapu. Before this compaign is launched, preparation must be made by inhabitants of some villages who wish to partake in the fishing, in splitting of hundreds of green coconut leaves in half and tying them to a rope (*pola*) of approximately two miles long. When this is done, the time for this line to be taken out to sea is decided on by the headman or *toutai* who is in charge of the whole expedition. When the word is given for the *pola* to be taken out to sea, the *toutai* directs the people to the area he thinks most suitable

105: Vaea & Straatmans G,I-3 (no date) 1954
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for that time of the year. The *pola* is then taken out in a semicircular fashion, the opening facing the beach, and is half buried in the sand to prevent it from being shifted by the currents. Sticks are then put up along the line which completes the preliminary work.

After a few days watching the tide, the *toutai* gives the word and hundreds of people go out and loosen the half buried line and tie it to the sticks and remain there to keep the lines in position. It must be noted that the approach to the line must be made outside the blockaded area. When the tide begins to turn, big fish start to return to deep sea and on returning they find themselves enclosed by the coconut leaves and fishermen behind the line. They are forced to turn back and look for an opening to get out but each time they approach the line they are forced back with spears to the blockaded area. As the tide goes out some fish are so scared that they prefer to swim around inside the blockade and some take the risk to try and pass the blockade although this is always unsuccessful.

When the tide is nearly out and the fish is floundering in shallow water or in little pools, the *toutai* gives the word and everybody is allowed to go inside the line and fish for himself.

Kind of fish usually caught by this method: 1. Matu; 2. Te'efo; 3. Sipesipa; 4. Kanahe; 5. Tanutanu; 6. Kavakava; 7. Kiokio; 8. Toke; 9. Mataolo'i.

(b) *Faka'uvea* is the method of catching fish employed by the Niuatoputapu island people. It apparently originates from Uvea (Wallis Island). Whole coconut leaves are used, weighted with stones.

This method of fishing is similar to *pola* but instead of one day only, it goes on for 3-4 months (Feb.-May), during the arrival of millions of small *vete*, called in Niuatoputapu *kaloama*. Larger fish of this kind, somewhat like the surmullet, are called *ulumakau*.

The fish enters the traps near to the shore at high tide. When tide starts to turn, they take up positions near the openings. These openings are of such size that they can be closed with one leg. A *kenu* made of the midrib of coconut leaves is placed in the opening at A to collect the small fish. When it is full, it is emptied into baskets while the opening

105: Vaea & Straatmans G,I-3 (no date) 1954
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226 is kept closed with the leg to prevent the fish escape. Sometimes larger fish like mullets or kingfish are caught in this way.

(c) *Uloa.* Again coconut leaves are used in this method of fishing in very much the same manner as described in (a) above but the *pola* is higher due to its being used in much deeper water. The *uloa* is worked around slowly to form a complete circle with a radius of something like one hundred yards.

When the circle is completed, it is gradually made smaller by pulling both ends of the line and a few swimmers [227] keep the circle in shape. As the circle becomes smaller and smaller the *tuki* or big strong basket made of coconut husks and fibre is being placed at the point where the ends meet.

As the circle closes the fish seek the shelter of the basket. When all the fish are in, the *tuki* is closed and the fish are trapped.

With this method of fishing, one kind of fish is usually caught in one haul, with few strangers amongst them. The reason for this is the dropping of the line amongst a school of fish.

[825] *Kind of fish usually caught with this method*: 1. Koango; 2. 'Ume; 3. Kiokio; 4. Lupo; 5. Momoa; 6. Fate; 7. Fai; 8. Tanutanu.

(d) *Tolo.* At Niuatoputapu is a method similar to *uloa* and used in certain lagoons to catch mullet (usually in 226 March). A whole wall of plaited coconut leaves up to twelve 227 feet wide and as long as the width of the lagoon is being pulled towards where the mullet is driven into the *tuki.* Mullet jumping out of the water are caught in a net (*heu*), ending in a bag tied to a frame with handle.

(e) *Tuotua.* This is an easy method of fishing mostly 226 carried out by women of the Northern groups, particularly [227] Ha'apai. Larger Tongan baskets made out of coconut leaves and called *'oa,* are left out in the sun to dry until they are of a brownish colour. At low tide these baskets are taken to the reefs, filled to the top with attractive corals and placed amongst the coral reefs. With long sticks, the women then go out about the reefs, poking the bottom of each rock where the fish lives. This disturbance forces them to leave their present hiding places and look for others amongst the corals.

105: Vaea & Straatmans G,I-3 (no date) 1954
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little net. The fisherman hauls his net and retires. Sometimes a fisherman swims with his net, not requiring a canoe. 226 [481]

(c) *Huluhengi* is and driving of fish in the night with torches towards a net.

(d) *Finaki* is an old way of catching fish by means of traps of the same name. *Finaki* traps are elaborate affairs made of coconut roots or wire netting.

(e) *Ta 'ulukau.* *'Ulukau* is the name of a species of fish which has characteristics similar to the *'atu.* They roam in schools and come to rest near certain beaches of the Northern groups. Netting them there is a method widely used. 196 [825] 226

(f) *Fakamamaha.* The principles of this method are exactly the same as those of the *pola,* only it is done with an ordinary fish net with weights attached to the bottom. It floats on the surface thus requiring no men to hold the net up as is done with the *pola.* At high tide the net, of about 120 yards in length, is placed in such a position as to enclose an area in a semicircular fashion against the beach. At low tide the fish on returning to deep water cannot get through and so are forced to find shelter in small pools where they are easily caught with spears and *pulou,* that is covering the fish with a net.

(g) *Pulou* is the circular fish net, approximately five yards in radius, at the edges of which lead or zinc weights are attached. A fisherman using the *pulou* carries it on his shoulder, the net, of course, being folded in a way ready for action at short notice. The fisherman wades out knee-deep in the water and looks for fish. The trick of this method is to know the signs in the water of the presence of a school and another is, to approach into close range without frightening the fish away. If one does not master these two tricks, a good collection of corals and seaweeds may be the only reward. When the shoal is located, either coming or returning with the tide, the fisherman crouches to disguise his human form, perhaps hoping to exhibit the appearance of rock. At the same time the net automatically comes to a position ready for throwing. If the school travels towards him, good aim and a perfect throw may finish the day's fishing at once. On the other hand, if the school is moving away, [227]

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226 a good bit of stalking has to be done and a wild throw usually follows, with or without results.

(h) *Silita.* This method of fishing is actually placing the net in a straight line behind a junction where two lines of *pola* are set out. The *pola* lines are gradually worked around by pulling until they meet and overtake each other. Now the oval is gradually made smaller by continuing to pull. The net is now taken around and when completely surrounded, the *polas* are taken out and the net is hauled on to a boat or dragged to shallow water with the catch.

(i) *Tali* is the setting of the net in a passage which is the only outlet to deep water from the sandflats. When the tide turns, the net is placed across this passage to await the return of the fishes back to deep water.

(j) *Tapo* is placing of a net in the water in a straight line. The fisherman goes out with his boat on either side for about sixty yards away and returns, hitting the water with long sticks and making big splashes in the direction of the net. The fish, being frightened, dash away in the direction of the net and are caught with very little effort. The net is then moved on to another area and the same process repeated.

[229] (k) *Kupenga Sili* is a net of about twenty feet long and four feet wide. At the bottom weights are attached and floats at the top. The net is folded in such a manner as to be easily held by one hand only and thrown, the arm is so dexterously manoeuvred that, when the net is in the water, it lays out in a semicircular manner. To close the gap, three or four men go out together and throw their nets one after the other and so form a complete circle enclosing a small area. From then on the method described in *tapo* is proceeded with.

4.—Spear Fishing.

(a) Spearing under water and arrow spearing are the usual methods.

(b) *Taupoa* or *Fakapoa* is to lure the fish to a certain area by hidden bait which attracts the fish away from their shelters by its smell. Usually, meat or fish, in a bag tied to a line, is dropped where one intends to fish. The smell from the bag brings the big fish out and then fish-hooks with bait

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(b) *Shark Noosing.* This method of shark fishing is carried out on the outlying reefs and areas where sharks have not been recently disturbed by passing ships or other human activity. It is often carried out some fifty miles to the south of the main island where sharks are so tame that they often come very close to the boat as if to inspect it. However, the first shark to show up is always given great respect and is named after the most beautiful lady Hina. She is given flower laurels as well as a bowl of kava before she is being asked to go and return with all her friends from the deep. A little while after Hina disappears, more sharks come up near where the boat is. Bait (meat) is then thrown out on a line and as the shark approaches, it is drawn back to the boat. As the shark follows the bait alongside the boat, a noose is thrown around the bait and as the shark comes closer to the bait through the noose, the bait is drawn up and the noose is slipped round the shark's neck. The shark is then pulled on board and killed. If the first shark disappears from the water with little if any disturbance, the next can be caught in exactly the same way.

(c) *Makafeke (Octopus Baiting).* An old Tongan legend relates that once upon a time a boat, while sailing from one island to another, capsized and a rat, which happened to be on board, set out to swim. While swimming in the ocean and drowning a certainty, an octopus came to the rescue and offered the rat a ride on its head. The rat could not be too thankful and was carried on the head of the most chivalrous octopus. Sighting land, the octopus took the rat close to the beach so that it could swim ashore. The rat after getting ashore showed his appreciation of the octopus' service by singing a little song in return. It goes like this:—

Feke na, feke na,	Octopus, octopus,
Faka hake ki ho 'ula na,	Feel your head above,
Kuo fonufonu te'ekuma.	It's full of rat excretion.

Hearing this, the octopus was so mad at this most ungrateful rat, that he boasted to take revenge against every rat found by him in the water from that day on.

Makefeke are stones designed to appear something like a rat with a coconut root as an imaginary tail. The stones are fastened to a line which is shaken above the surface of